

From: [McCarter, Jennifer](#)
To: [Jacobson, Linda](#)
Cc: [Bailey, Treasure](#); [Churchill, Stephen](#); [Pearson, Janice \(she/her/hers\)](#); [Muller, Sheldon](#); [Kilty, Quinn V](#); [Bloomberg, Jon H](#)
Subject: RE: Xcel request
Date: Wednesday, May 19, 2021 2:47:48 PM
Attachments: [Comanche XC_EE_Final_20210519.pdf](#)
[Comanche XC_FF_Final_20210519.pdf](#)
[Comanche XC_GG_Final_20210519.pdf](#)

Hi Linda, our responses to your questions are listed below. Please let me know if you have additional questions. Thank you.

Jennifer McCarter, R.E.M.

Xcel Energy

Environmental Analyst

Environmental Services Department

1800 Larimer St., Suite 1300, Denver, CO 80202-1414

P: 303-294-2228 C: 720-810-1220 F: 303-294-2328

E: jennifer.mccarter@xcelenergy.com

XCELENERGY.COM

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From: Jacobson, Linda <Jacobson.Linda@epa.gov>

Sent: Thursday, May 13, 2021 3:50 PM

To: McCarter, Jennifer <jennifer.mccarter@xcelenergy.com>

Subject: Xcel request

EXTERNAL - STOP & THINK before opening links and attachments.

I hope things are well with you. I thought I would check in and see what progress has been made on installation of the temporary treatment system and the package plant and also see if everything else was progressing smoothly or what problems or obstacles you may have encountered.

- The temporary system installation is progressing well, although we have had multiple days of weather delays. However, barring any significant additional delays we still anticipate that the temporary system will be operational approximately mid-June. Most of the balance of plant work (bunkers, valves, etc.) is common to both systems, so in that sense, much of the preparation work for the packaged plant will be complete once the temp system is operational. However, there are some long lead items that are driving the schedule and the packaged plan is still anticipated to be operational mid- to late-August.
- Multiple heavy rain events resulted in delayed concrete pours and backfilling activities. However, zone 4 of the bunker which is needed for the temporary system has been poured and backfilled and installation of piping has begun. We are working with our vendor to arrange for extended operation of the temporary system until the package plant is on line.

We are also requesting everything that you have developed regarding the SSI aspects of the CCR regulations which includes everything you have done to date, as well as your planned/ongoing efforts and the timing associated with those efforts. Please be sure to include the Statistical Method Certification for the development of the Background Threshold Values used to identify the initial SSIs. Please also let us know whether this document will be posted on your public website and, if so, when.

- the first detection monitoring event was completed in January for the following wells.

- bottom ash pond wells - W-1, W-2A (upgradient/background well), W-3, W-4, W-5, W-5B and W-6
- landfill wells - MW-1B, MW-2B, MW-3, MW-4B, MW-5 and MW-6
- perimeter wells – W-7, W-9, W-11 and W-12
- characterization wells – W-2, W-2B W-8B (functionally dry), W-10B
- The detection monitoring results were discussed with EPA on 4/13, including limited SSIs for boron (pond wells W-1 and W-6), pH (all pond wells except W-7), and a single SSI at the landfill for calcium (MW-4B). The detection monitoring lab reports and tabulated data for sampling at all wells were provided to EPA on 4/13. Slides from the 4/13 presentation were sent to EPA on 4/19. Documentation of the SSI determination will be placed into the Operating Record by May 26th
- The Background Statistical Certification Report is in progress and will be completed concurrently with the SSI documentation by May 26th. We will provide this document to EPA at that time. We will also post it to our CCR website (and notify the state) as soon as possible thereafter; it typically takes our IT department up to a week to post things.

Please provide us updates on the next steps to address the SSI exceedances, including implementation of the Assessment Monitoring and a schedule for its implementation. If you have received results from the first round of the assessment monitoring, please share those with us as well.

- Based upon the SSI determination, assessment monitoring or alternative source demonstration would be required to begin (or demonstration completed) by August 24th. However, in the interest of further evaluating site groundwater conditions sooner rather than later, we completed the initial assessment monitoring event for all Appendix IV constituents between April 6-19. Because we are still developing background data on some wells, Appendix III constituents were also included on all wells. As EPA likely noted, we also tested for all Appendix IV constituents in our January testing event. That information was provided to EPA as part of that data set.
- We have begun to receive lab reports from the April sampling event but have not yet received all results. Once we have received all lab reports, we will update the data tables previously provided and send the tables and lab reports to EPA, we expect in early June. However, in anticipation of receiving the remaining lab reports, we are scheduled to complete the second assessment monitoring event on most wells May 25-28; for the wells that are slow to recharge, this will likely extend beyond the end of May. Samples will be analyzed for all Appendix III and any Appendix IV constituents detected in the initial sampling event. Although we have initiated assessment monitoring, we also intend to evaluate potential alternative sources

Do you have your upcoming semi-annual monitoring scheduled? If so, when will that be conducted, what wells will be included, and what parameters will be monitored?

- The first assessment monitoring sample event was completed in April. The second assessment monitoring event (which is the first semi-annual sampling for App. 3 and *detected* App. 4 constituents) is required within 90 days of receiving results of the first assessment monitoring sample event. We would anticipate receiving the results of the second assessment monitoring event in early July, which would make the next semi-annual sampling event in late November or early December 2021. The initial assessment monitoring events have included all wells. We are in the process of updating the Groundwater Monitoring System Certification, which will define which of the new wells are included in the system and monitored.

Additionally, the information below is provided as follow up on our last technical discussion with EPA on April 22nd.

- Attached are updated cross-sections with the addition of LiDAR data to interpret the ground surface elevation between the Comanche site and the off-site wells. As noted on the cross-sections, the LiDAR elevation data for the specific area at the Comanche site differs from the site specific surveyed elevation data we have from the monitoring wells. Both surfaces are shown on the figures, but the monitoring well drilling log information is based upon the well surveys. Also, in the process of reviewing property ownership between the Comanche Site and the St. Charles River, we conducted an additional search of the Division of Water Resources well database by property owner name(s). When EPA initially brought to our attention the presence of off-site wells, we completed a geographic search in the state data base, believing the data base would yield comprehensive results. The more recent search by owner name identified one additional off-site well (Baca) that was not identified in the geographic search. This well has been added as cross-section G-G'.
- Our records indicate that the raw water pond (RWP) at Comanche was constructed in 1972 with a 3-foot clay liner. The pond has a surface area of approximately 44 acres, depth of approximately 18 feet, and storage capacity of 278 million gallons. The water depth in the pond is typically kept at 16 feet, with two feet of freeboard. The pond is not excavated/cleaned and the clay liner is continuously submerged, so we would expect that it maintains its original very low hydraulic conductivity rate typical of compacted clay liners. Additionally, the potentiometric surface in the southeast corner of the site appears to be influenced more by the bedrock high observed in the boring logs, than potential seepage/driving head from the RWP. However, we are reviewing pond and monitoring well water chemistry data (including trilinear plots) as an additional tool to evaluate potential influence from the RWP.

Thank you.

Stay well and take care.

Linda Jacobson